

**NAMPA HATCHERY
ANNUAL REPORT**

INTRODUCTION

Nampa Hatchery is a salmonid rearing facility located two miles south of Nampa. The water supply includes eight artesian wells with a combined flow of 18 to 34 cfs of 59°F water. Built in 1975, and purchased by the Department in 1982, fish rearing facilities consist of: a hatchery/crew quarters building, 4 upwelling incubators, and 4 early rearing vats. Outside rearing tanks include 16 fry raceways, 3 fingerling raceways, and 10 production raceways. A settling pond treats flows from the production units before discharge into Wilson Drain.

Nampa Hatchery stocked 1,528,158 fish totalling 230,482 pounds during the past year. Rainbow trout of various strains were the major fish produced, totalling 649,668 fish and 156,023 pounds. In addition, Kamloops, brown trout, and Lahonton cutthroat were produced (Table 1).

HATCHERY IMPROVEMENTS

During the 1988-1989 production year, the incubator room was reconstructed in order to prevent further moisture damage. Each incubator was replumbed to provide a better waterflow. Storage area was increased by installing new cabinets.

Galvanized catwalks were installed at the upper and lower end of each raceway to allow safe access.

Baffles were constructed for the A ponds to provide a self cleaning system. Also, sixteen aluminum mesh screens were built.

A new lawn vacuum was purchased to improve lawn care.

FISH PRODUCTION

A total of 260,120 pounds were produced during the past year. Of that total, 230,482 pounds of fish were planted during the fish year 1988-1989, and 29,638 pounds remained on the hatchery to be planted out the following year. The total pounds produced was 4% higher than the historical goal of 250,000 pounds, and 8% over last year's production. The total number of fish stocked was 1,528,158, and the overall feed conversion was 1.28. Flows ranged from 20 cfs to 36 cfs for an average flow of 27.5 cfs (Figure 1).

Table 1. Fish requested and produced.

Species	Size	Production goal	Actual production	Percentage of goal achieved
Rainbow	6+ inches	617,950	453,438	73%
Brown	6+ inches	2,000	4,320	216%
Brown	6+ inches	0	54,490	excess
Kamloops	6+ inches	6,200	6,230	100%
Kamloops	6+ inches	0	304,855	excess
Rainbow	3-6 inches	575,000	196,230	34%
Brown	3-6 inches	168,000	68,615	41%
Lahonton	3-6 inches	400,000	110,195	28%
Kamloops	3-6 inches	450,000	329,785	73%
Redband	3-6 inches	408,000	0	0

NAMPA HATCHERY WATERFLOW

1988-1989

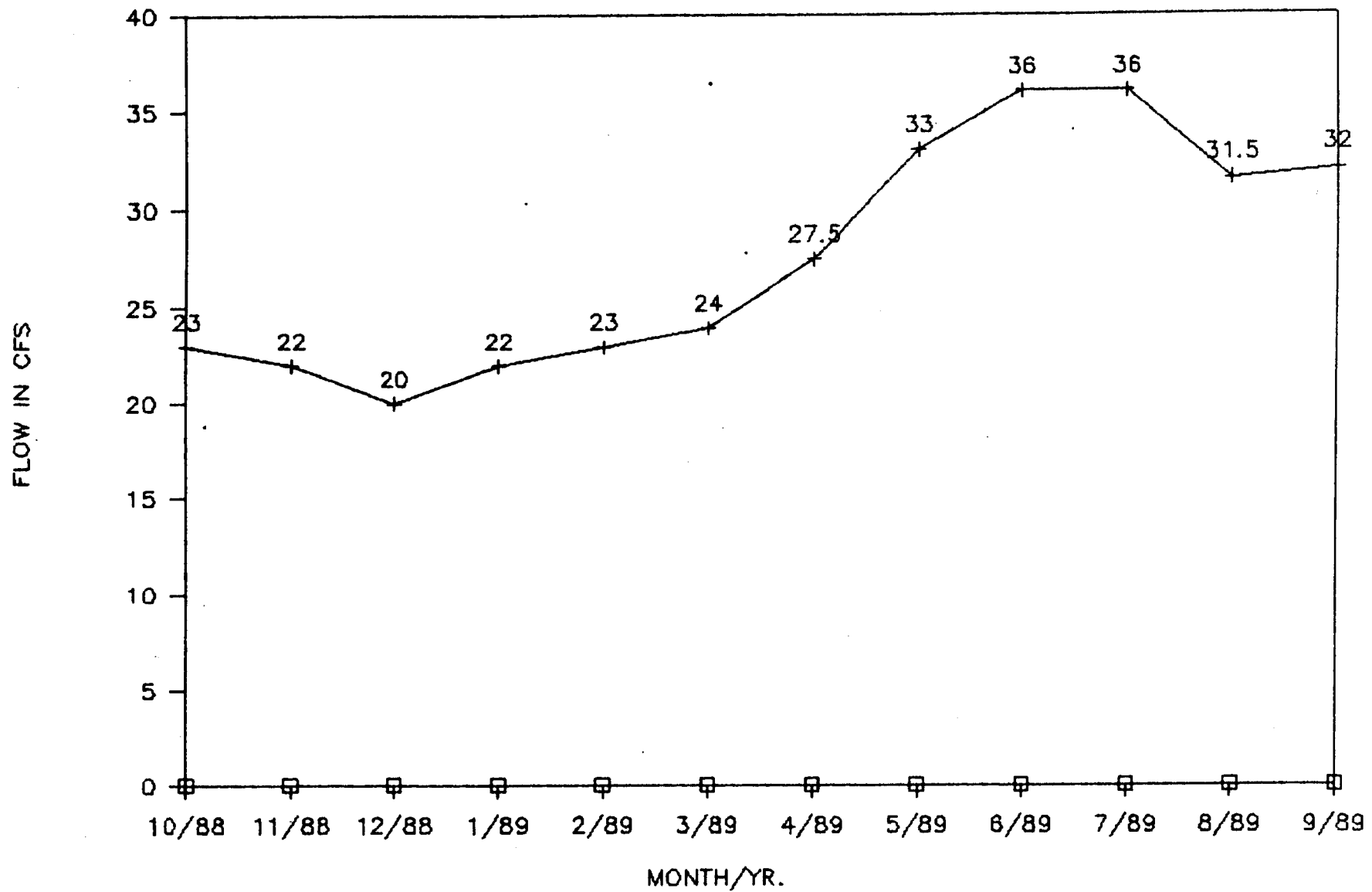


Figure 1. Nampa Hatchery water flows.

Total fingerling production increased immensely over the last year producing a much larger workload for the hatchery employees. Table 2 shows the comparison by species for the past two years.

Eggs received during the fish year 1988-1989 are listed in Table 3.

Total production of each species/strain is listed in Tables 4 and 5.

Browns

Approximately 180,000 brown trout eggs were received from Spring Creek Hatchery in Lewiston, Montana on November 10, 1988. Early survival rate was low because of their sensitivity to nitrogen. Also, cannibalism occurred due to the fish's innate behavior.

A total of 68,615 of the Spring Creek browns were planted as fingerlings in May and April. The remaining Spring Creek fish were raised to over 6 inches and planted in June and September.

Also, 36,340 of Plymouth Rock browns from the 1987-1988 fish year were raised to over 6 inches and planted during the 1988-1989 fish year.

Lahontan Cutthroat

Nampa Hatchery stocked 110,195 Lahontan cutthroat into Lake Lowell and Crane Falls Reservoir during the month of November.

Also, we received 300,689 Lahontan cutthroat eggs from the Omak Hatchery in Washington and 248,000 eggs from Klamath Falls Hatchery in Oregon.

FISH HEALTH

During the past year, fish samples were collected from the settling pond and tested for whirling disease. All tests were negative. Tests were also conducted for BKD, IPN, IHN, enteric red mouth, and furunculosis. These tests were also negative.

Minor outbreaks of myxobacteriosis were successfully treated with TM-50 for 10 days and with a Benzalkonium Chloride bath at 2 ppm for one hour every third day for the duration of the treatment.

The Nampa Hatchery had very few outbreaks of Bacterial Gill Disease during the past year. Fingerlings were treated with Diquat at levels of 8.4 ppm for

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Table 2. Fish Production.

Species	1988-	1987-88
Brown	68,615	65,192
Lahonton	110,195	66,000
Kamloops & Rainbow	526,015	95,700
TOTALS	704,825	226,892

Table 3. Eggs received at Nampa Fish Hatchery, October 1, 1988 to September 30, 1989.

Species/ strain	Received date	Source	Number	% Hatch	Destination	Expected yield	Cost/ 1,000
Rainbow/R1	10/5/88	Sulphur	200,000	63	Region 2,3	83,000	n/c
Kamloop/K1	11/2/88	Skanes	225,000	81	Region 3	149,000	8.00
Brown/BN	11/10/88	Spring Cr.	180,000	76	Region 3	92,000	6.95
Kamloop/K1	2/2/89	Skanes	500,000	75	Region 2,3	330,000	8.00
Kamloop/K1	2/28/89	Skanes	400,000	72	Region 2,3,5	261,000	8.00
Rainbow/R1	3/23/89	Lost R.	250,000	55	Region 3,5	126,000	7.00
Rainbow/R1	4/11/89	Story	326,000	62	Region 3,5	179,000	n/c
Rainbow/R1	4/11/89	Creston	374,000	70	Region 3	201,000	n/c
Rainbow/R1	4/18/89	Creston	235,000	55	Region 3	107,000	n/c
Cutthroat/C6	4/2/89	Omak	300,869	77	Region 3	211,000	n/c
Cutthroat/C6	6/9/89	Klamath	248,000	61	Region 3	137,000	n/c
Rainbow/R1	7/21/89	Tasmania	400,000	89	Region 3	320,000	9.50
Rainbow R/1	9/28/89	Erwin	200,000	75	Region 3	130,000	n/c

Table 4. Fingerling production at Nampa Hatchery.

Species/ strain	Source & date	Number received	Yield number	Percent pounds	Percent survival egg to plant	Destination	Cost/ fish	Cost/ pound
Lahontons C6	Omak 5/88	200,000	110,195	2,765	88 ^b	Region 3	.073	2.92
Brown BN	Spring Cr. 12/88	180,000	68,615	1,043	51 ^a	Region 3	.044	2.87
Kamloop K1	Skane 11/88- 2/89	1,125,000	329,785	11,145	66 ^o	Region 2,3,5	.098	2.91
Rainbow R1	Lost R. 3/89	250,000	96,600	5,600	50 ^c	Region 3,5	.17	2.92
Rainbow	Erwin	230,000	99,630	8,100	68 ^a	Region 3	.24	2.91

^aTable 4 and 5 were combined to get the actual percent survival from egg to plant.

^bA portion of this lot was planted during the 1987-1988 fish year and this is the actual survival from egg to plant.

^cThe remainder of this lot was planted during the 1989-1990 fish year and this is the actual survival from egg to plant.

Table 5. Catchable production at Nampa Fish Hatchery.

Species/ strain	Source & date	Number received	Yield number	Percent pound	Percent survival egg to plant	Destination	Cost/ fish	Cost/ pound
Rainbow R1	White Sulphur Sp. 10/88	200,000	86,603	29,082	43	Region 2,3	.23	.69
Rainbow R4	Mt. Lassen 6/88	400,000	278,70 ^a	75,373	69 ^b	Region 3	.19	.69
Rainbow R5	Shasta 1/88	57,000	31,964	21,09 ⁿ	56	Region 3	.45	.68
Rainbow RFL	Erwin 3/88	230,000	56,167	16,77 ^o	68 ^a	Region 2,3	.21	.69
Brown BN	Spring Cr. 12/88	180,000	22,470	3,450	51 ^a	Region 3	.11	.68
Brown BN	Plymouth 12/87	234,000	36,340	7,900	46 ^b	Region 3	.15	.69
Kamloop K1	Skane 10/87	200,000	97,970	12,275	66 ^b	Region 3	.09	.68
Kamloop K1	Skane 11/88- 2/89	1,125,000	213,115	35,801	66 ^o	Region 2,3	.12	.69

^aTable 4 and 5 were combined to get the actual percent survival from egg to plant.

^bA portion of this lot was planted during the 1987-1988 fish year and this is the actual survival from egg to plant.

^cThe remainder of this lot was planted during the 1989-1990 fish year and this is the actual survival from egg to plant.

three days, and catchables were treated with Benzalkonium Chloride at levels of 1 ppm, 1.5 ppm, and 2 ppm for three days.

SATELLITE PROJECTS

Nampa Hatchery was given the early kokanee salmon trapping and spawning project at Deadwood Reservoir from Eagle Hatchery. Deadwood Reservoir remains a viable source for early kokanee eggs. Trapping of KE adults started on August 11, 1989 and ended on September 4, 1989. An estimated 8,091 adults were hauled from the trap site near Riverside Campground to the Eagle Hatchery. An egg yield of 1,796,620 eggs was taken from 4,027 females, for a fecundity rate of 446 eggs per female. A total of 400,800 green eggs were shipped to Ashton Hatchery, and 1,011,559 eyed eggs were shipped to Mackay Hatchery. Eye-up rate was 72.47%. The lengths for adult females averaged 11.48 inches and 11.70 for adult males (Figures 2a-2b).

A redband trapping and spawning project was initiated at Josephine Creek Reservoir and Louisa Creek Reservoir to obtain eggs for a subsequent fingerling release into Owyhee County lakes.

Hoop-netting in the creeks began on April 19, but was terminated once a temporary weir was constructed; April 26 at Josephine Creek and May 5 at Louisa Creek. Only one redband (immature male) was captured using the hoop nets. Trapping continued through the middle of June, but no redbands migrated up either creek. About ten redbands were caught on hook-and-line in Louisa Creek, but nine were immature and the other was a 16-inch male.

A trap net was used in Louisa Creek and captured about fifteen redbands ranging in size from 4 to 10 inches. When it appeared no redbands were going to migrate up Josephine Creek, two gill nets were set to determine if redbands were present in the lake. No redbands were captured, but squawfish, suckers, and shiners were abundant.

It is recommended that these sites be removed from future consideration for egg sources. Josephine Creek appears in need of complete renovation, and Louisa Creek contains too few redbands to meet hatchery goals. Trapping began on April 3, 1989 and continued through June 16, 1989.

The Kamiah redistribution project is operated through Nampa Hatchery. A total of 36,163 fish weighing 11,544 pounds were transferred to the Kamiah Pond and stocked in Region 2 waters.

SPECIAL PROJECTS

A hydrogen peroxide floatation method for egg picking was again used this year with success. In addition, a newer Jensorter was borrowed from the McCall Fish Hatchery and achieved favorable results by cutting egg picking time nearly

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1989 EARLY KOKANEE - DEADWOOD RES.

LENGTH FREQUENCY - MALES (N=640)

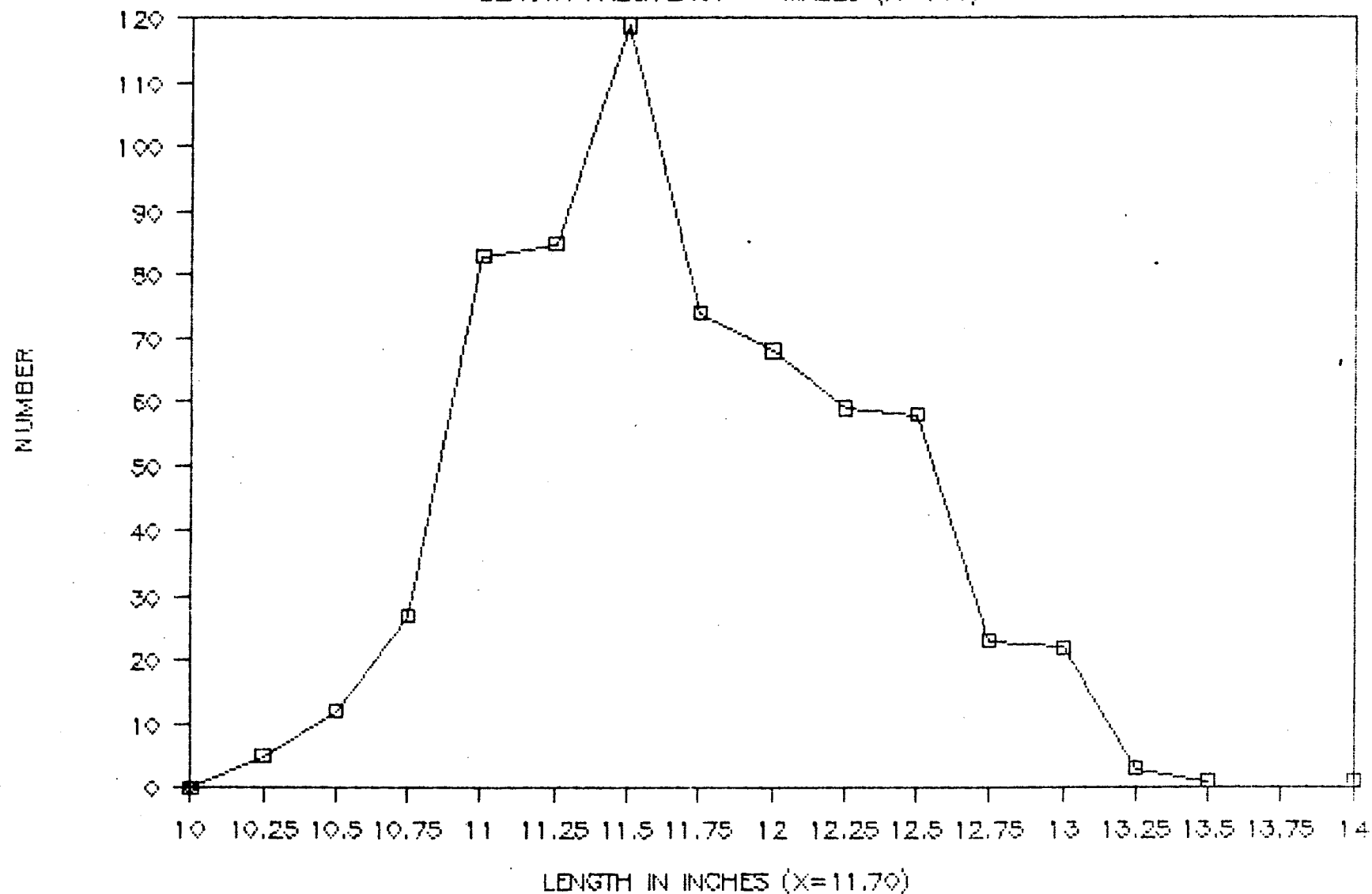


Figure 2a. Kokanee length frequencies from Deadwood Reservoir, 1989.

1989 EARLY KOKANEE - DEADWOOD RES.

LENGTH FREQUENCY - FEMALES (N=1035)

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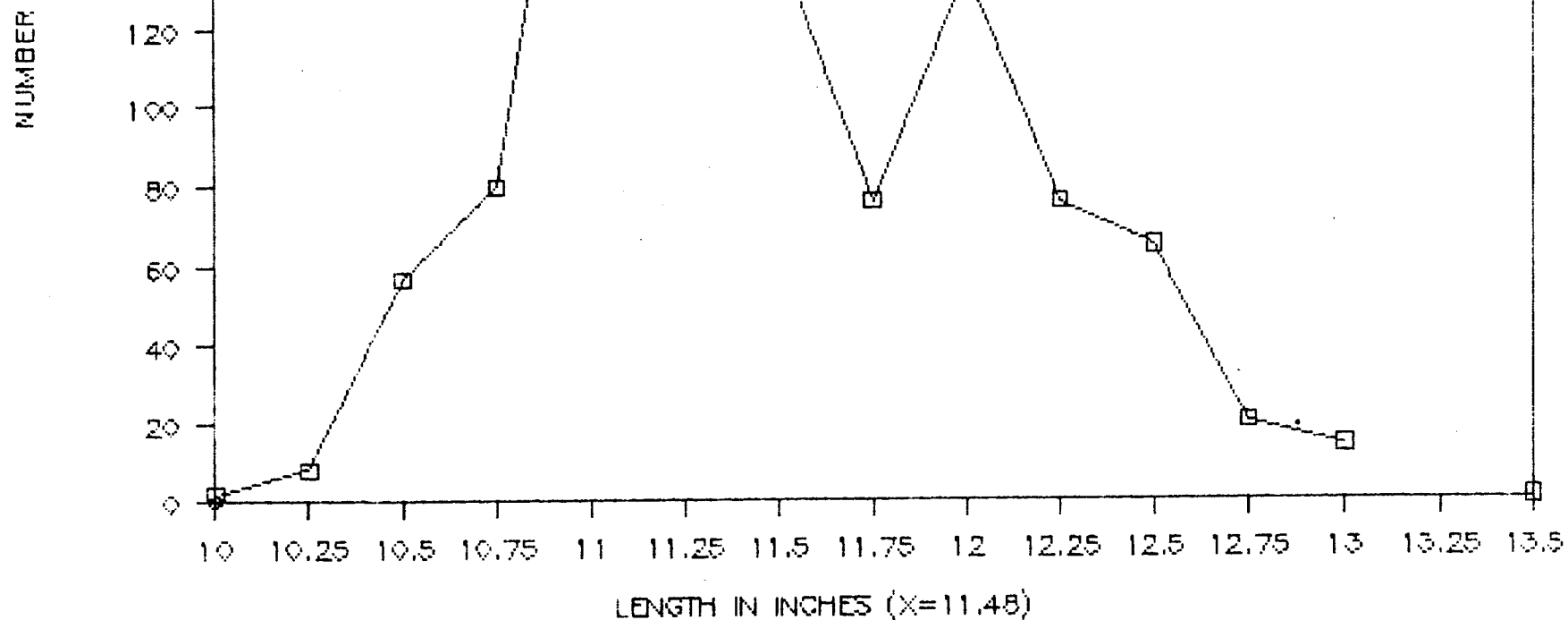


Figure 2b. Kokanee length frequencies from Deadwood Reservoir, 1989.

in half. Some egg trauma occurred, but not enough to warrant discontinuing use of the Jensorter.

As a result of shipping 400,000 green eggs to Ashton Hatchery, additional incubation space was not needed at Eagle Hatchery. Therefore, all Kokanee eggs were incubated in the Heath stacks.

PUBLIC RELATIONS

Every year, the number of tourists increases at the Nampa Hatchery. Tours were given to organized groups, such as YMCA, scout, and area school groups. Also, hatchery personnel gave presentations to Hunter Education classes in the Nampa area.

The settling pond was fished by handicapped groups from the Veteran's Home and State School. The fishing was great, which made it an enjoyable experience for all those who participated.

Area sportsmens groups, Gem State Fly Fishermen, Idaho Free Trappers, Nampa Rod and Gun Club, Nampa Bow Chiefs, and 4-H groups utilized the conference room for monthly meetings.

